

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Sin J. Lee Examiner #: 76060 Date: 11-16-04
 Art Unit: 1752 Phone Number 303-2-1333 Serial Number: 10/690,217
 Mail Box and Bldg/Room Location: 9D67 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

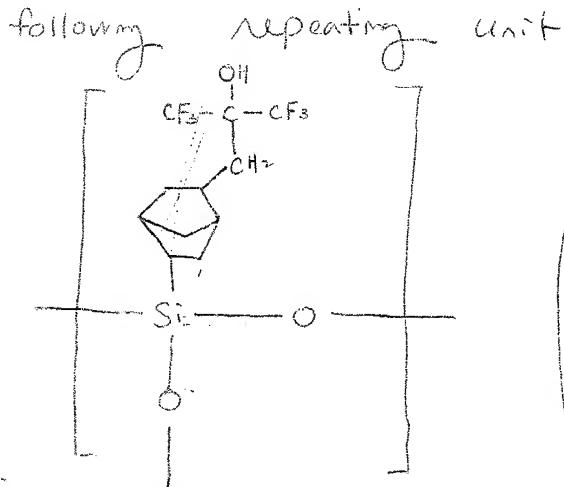
Title of Invention: Photoresists containing Si-polymer

Inventors (please provide full names): Barclay, George A; Kanagasabapathy, Subbareddy

Earliest Priority Filing Date: 10-21-03

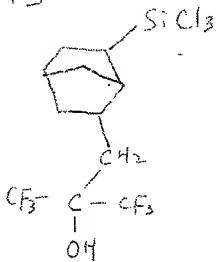
For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

Please Search for o Polymer
that comprises the



* This polymer
is to be used in
a positive type photoimagerable composition
(or photoresist composition)

For your information,
Starting monomer
which makes
this polymer
is



STAFF USE ONLY

Type of Search	Vendors and cost where applicable
NA Sequence (#)	STN <u>1300,87</u>
AA Sequence (#)	Dialog _____
Structure (#)	Questel/Orbit _____
Bibliographic	Dr.Link _____
Litigation	Lexis/Nexis _____
Fulltext	Sequence Systems _____
Patent Family	WWW/Internet _____
Other	Other (specify) _____



STIC Search Results Feedback Form

EIC17000

Questions about the scope or the results of the search? Contact **the EIC searcher or contact:**

Kathleen Fuller, EIC 1700 Team Leader
571/272-2505 REMSEN 4B28

Voluntary Results Feedback Form

- *I am an examiner in Workgroup:* Example: 1713
- *Relevant prior art found, search results used as follows:*
- 102 rejection
 - 103 rejection
 - Cited as being of interest.
 - Helped examiner better understand the invention.
 - Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

- Foreign Patent(s)
- Non-Patent Literature
(journal articles, conference proceedings, new product announcements etc.)

➤ *Relevant prior art not found:*

- Results verified the lack of relevant prior art (helped determine patentability).
- Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to EIC1700 REMSEN 4B28



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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 24 NOV 2004 HIGHEST RN 788132-72-9
DICTIONARY FILE UPDATES: 24 NOV 2004 HIGHEST RN 788132-72-9

TSCA INFORMATION NOW CURRENT THROUGH MAY 21, 2004

Please note that search-term pricing does apply when conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more information enter HELP PROP at an arrow prompt in the file or refer to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> d his

(FILE 'HOME' ENTERED AT 09:54:13 ON 26 NOV 2004)

L1 FILE 'LREGISTRY' ENTERED AT 09:54:22 ON 26 NOV 2004
STR

FILE 'HCA' ENTERED AT 09:59:59 ON 26 NOV 2004
E BARKLAY G/AU
E KANAGASABAPATHY S/AU
E BARCLAY, G/AU
L2 43 S E3-E9
E KANAGASABAPATHY S/AU
L3 27 S E3-E9
E BARCLAY, G/AU
E BARCLAY G/AU
L4 0 S E3 AND E7
L5 28 S E3 OR E7
L6 0 S L3 AND L5

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L7 FILE 'LREGISTRY' ENTERED AT 10:36:53 ON 26 NOV 2004
STR L1

L8 FILE 'REGISTRY' ENTERED AT 10:38:13 ON 26 NOV 2004
0 S L7 SAM
SET COST OFF PERM

L9 FILE 'LREGISTRY' ENTERED AT 10:52:54 ON 26 NOV 2004
STR L'/

L10 FILE 'REGISTRY' ENTERED AT 10:59:49 ON 26 NOV 2004
0 S L9

FILE 'HCAPLUS' ENTERED AT 11:03:26 ON 26 NOV 2004
 L11 1682 S BARCLAY ?/AU
 L12 91 S KANAGASABAPATHY ?/AU
 L13 9 S L11 AND L12
 SEL L13 2 RN

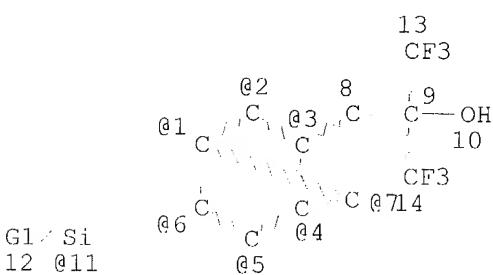
FILE 'REGISTRY' ENTERED AT 11:12:53 ON 26 NOV 2004
 L14 11 S E1-E11
 L15 3 S L9 FUL
 SAV L15 LEE217/A

FILE 'CAOLD' ENTERED AT 11:28:07 ON 26 NOV 2004
 L16 0 S L15

FILE 'HCAPLUS' ENTERED AT 11:28:25 ON 26 NOV 2004
 L17 1 S L15

FILE 'REGISTRY' ENTERED AT 11:34:16 ON 26 NOV 2004

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 L9 STR



VAR G1=CI,O
 VPA 11-6/5/2/1/1/4/3 U
 NODE ATTRIBUTES:
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 14

STEREO ATTRIBUTES: NONE
 L15 3 SEA FILE=REGISTRY SSS FUL L9

100.0% PROCESSED 167 ITERATIONS 3 ANSWERS
 SEARCH TIME: 00.00.01

=> file hcaplus
 FILE 'HCAPLUS' ENTERED AT 11:34:56 ON 26 NOV 2004
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FILE COVERS 1907 - 26 Nov 2004 VOL 141 ISS 22
FILE LAST UPDATED: 24 Nov 2004 (20041124/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> d 117 1 cbib abs hitstr hitind

L17 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2004 ACS on STN
2004:732316 Document No. 141:251436 Silicon-containing fluorinated polymers and photoresists comprising same. Barclay, George G.; Kanagasabapathy, Subbareddy; Pohlers, Gerhard (Rohm and Haas Electronic Materials, L.L.C., USA). Eur. Pat. Appl. EP 1455229 A1 20040908, 22 pp DESIGNATED STATES: R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, FE, HU, SK, HR. (English). CODEN: EPXXDW. APPLICATION: EP 2004-250947 20040223. PRIORITY: US 2003-PY449787 20030223.

AB Photoimageable compns. are provided that contain Si-polymers that have a specified ratio of fluorine atoms to Si atoms. Preferred photoresists of the invention can exhibit enhanced resistance to plasma etchants.

IT 753003-49-5DP, hydrolized

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of silicon-containing fluorinated polymers for photoresists)

RN 753003-49-5 HCAPLUS

CN Bicyclo[2.2.1]heptane-2-carboxylic acid, 6-(trichlorosilyl)-, 2-(acetoxy)ethyl ester, polymer with 6-(trichlorosilyl)- α,α -bis(trifluoromethyl)bicyclo[2.2.1]heptane-2-ethanol (9CI) (CA INDEX NAME)

CM 1

CRN 753003-48-4

CMF C12 H17 Cl3 O4 Si

Date not good

Cl₃Si
$$\begin{array}{c} \text{O} \\ || \\ \text{C}-\text{O}-\text{CH}_2-\text{CH}_2-\text{OAc} \end{array}$$

CM 2

CRN 753003-43-9

CMF C11 H13 Cl3 F6 O Si



IT 753003-44-0P

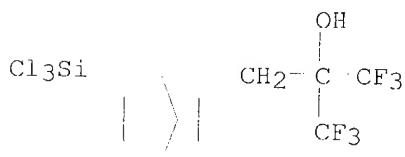
RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (preparation of silicon-containing fluorinated polymers for photoresists)

RN 753003-44-0 HCAPLUS

CN Bicyclo[2.2.1]heptane-2-carboxylic acid, 6-(trichlorosilyl)-, 1,1-dimethylethyl ester, polymer with 6-(trichlorosilyl)- α , α -bis(trifluoromethyl)bicyclo[2.2.1]heptane-2-ethanol (9CI) (CA INDEX NAME)

CM 1

CRN 753003-43-9

CMF C₁₁ H₁₃ Cl₃ F₆ O Si

CM 2

CRN 631896-39-4

CMF C₁₂ H₁₉ Cl₃ O₂ Si

IC ICM G03F007-075

CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 38

IT 287923-92-6P 685901-31-9P 685901-34-2P 753003-49-5DP,
 hydrolyzed

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of silicon-containing fluorinated polymers for photoresists)

IT 753003-44-0P 753003-46-2P

RL: SPN (Synthetic preparation); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

Lee 10/690,217

Page 5

(preparation of silicon-containing fluorinated polymers for photoresists)

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